

Atty. Dkt. M00B107

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- 1. (currently amended) A method of friction stir welding together at least wo metallic workpieces, including the step of applying at or adjacent a heated welding zone a cryogen in the form of at least one jet to cool said weld zone; thereby reducing tensile stresses in said welding zone and creating compressive stresses in said welding zone.
- 2. (previously presented) The method claimed in Claim 1, in which the cryogen is a liquid cryogen.
- 3. (previously presented) The method claimed in Claim 2, in which the liquid cryogen is nitrogen.
- 4. (previously presented) The method claimed in Claim 2, in which the liquid cryogen is argon.
- 5. (previously presented) The method claimed in Claim 1, in which the cryogen is solid carbon dioxide.
- 6. (previously presented) The method claimed in Claim 1, in which the cryogen is a mixture of solid carbon dioxide and a liquid cryogen.
- 7. (previously presented) The method claimed in Claim 1 wherein the workpieces are of aluminium or an aluminium alloy.